



# CATALOG

FAST ETHERNET , GIGABIT ETHERNET , SFP MINI GBIC , XFP , SFP+

## MEDIA CONVERTER

NEW  
2016

# LINK Media Converter Product Guide

Part Number	Type	Wavelength (nm)	Port 1		Port 2		Fiber (Core)	Distance (m)	Page
			Data Rate	Connector	Data Rate	Connector			
Mini Media Converter									
UT-0214	Fast Ethernet	1310	10/100Base-TX	RJ45	100Base-FX	ST (MM)	2	2,000	1-2
UT-0216	Fast Ethernet	1310	10/100Base-TX	RJ45	100Base-FX	SC (MM)	2	2,000	1-2
UT-0216-SM30	Fast Ethernet	1310	10/100Base-TX	RJ45	100Base-FX	SC (SM)	2	30,000	1-2
UT-0216-SM60	Fast Ethernet	1310	10/100Base-TX	RJ45	100Base-FX	SC (SM)	2	60,000	1-2
UT-0216-SM100	Fast Ethernet	1550	10/100Base-TX	RJ45	100Base-FX	SC (SM)	2	100,000	1-2
UT-0215TS-20	WDM Fast Ethernet	1310/1550	10/100Base-TX	RJ45	100Base-FX	SC (SM)	1	20,000	1-2
UT-0215RS-20	WDM Fast Ethernet	1550/1310	10/100Base-TX	RJ45	100Base-FX	SC (SM)	1	20,000	1-2
UT-0215TS-40	WDM Fast Ethernet	1310/1550	10/100Base-TX	RJ45	100Base-FX	SC (SM)	1	40,000	1-2
UT-0215RS-40	WDM Fast Ethernet	1550/1310	10/100Base-TX	RJ45	100Base-FX	SC (SM)	1	40,000	1-2
Enhance Media Converter									
UT-0214E	Fast Ethernet	1310	10/100Base-TX	RJ45	100Base-FX	ST (MM)	2	2,000	3-4
UT-0216E	Fast Ethernet	1310	10/100Base-TX	RJ45	100Base-FX	SC (MM)	2	2,000	3-4
UT-0216E-SM30	Fast Ethernet	1310	10/100Base-TX	RJ45	100Base-FX	SC (SM)	2	30,000	3-4
UT-0216E-SM60	Fast Ethernet	1310	10/100Base-TX	RJ45	100Base-FX	SC (SM)	2	60,000	3-4
UT-0216E-SM100	Fast Ethernet	1550	10/100Base-TX	RJ45	100Base-FX	SC (SM)	2	100,000	3-4
UT-0215ETS-20	WDM Fast Ethernet	1310/1550	10/100Base-TX	RJ45	100Base-FX	SC (SM)	1	20,000	5-6
UT-0215ERS-20	WDM Fast Ethernet	1550/1310	10/100Base-TX	RJ45	100Base-FX	SC (SM)	1	20,000	5-6
UT-0215ETS-40	WDM Fast Ethernet	1310/1550	10/100Base-TX	RJ45	100Base-FX	SC (SM)	1	40,000	5-6
UT-0215ERS-40	WDM Fast Ethernet	1550/1310	10/100Base-TX	RJ45	100Base-FX	SC (SM)	1	40,000	5-6
Industrial Media Converter									
UT-0214AI	Fast Ethernet	1310	10/100Base-TX	RJ45	100Base-FX	ST (MM)	2	2,000	7-8
UT-0216AI	Fast Ethernet	1310	10/100Base-TX	RJ45	100Base-FX	SC (MM)	2	2,000	7-8
UT-0216AI-SM20	Fast Ethernet	1310	10/100Base-TX	RJ45	100Base-FX	SC (SM)	2	30,000	7-8
UT-0216AI-SM60	Fast Ethernet	1310	10/100Base-TX	RJ45	100Base-FX	SC (SM)	2	60,000	7-8
UT-0215AI-TS20	WDM Fast Ethernet	1310/1550	10/100Base-TX	RJ45	100Base-FX	SC (SM)	1	20,000	9-10
UT-0215AI-RS20	WDM Fast Ethernet	1550/1310	10/100Base-TX	RJ45	100Base-FX	SC (SM)	1	20,000	9-10
UT-0215AI-TS40	WDM Fast Ethernet	1310/1550	10/100Base-TX	RJ45	100Base-FX	SC (SM)	1	40,000	9-10
UT-0215AI-RS40	WDM Fast Ethernet	1550/1310	10/100Base-TX	RJ45	100Base-FX	SC (SM)	1	40,000	9-10
Gigabit Ethernet Media Converter									
UT-1310	Gigabit Ethernet	-	10/100/1000Base-T	RJ45	1000Base-SX/LX	SFP	-	-	11-12
UT-1314	Gigabit Ethernet	850	10/100/1000Base-T	RJ45	1000Base-SX	LC (MM)	2	220/550	11-12
UT-1316	Gigabit Ethernet	850	10/100/1000Base-T	RJ45	1000Base-SX	SC (MM)	2	220/550	11-12
UT-1314-10	Gigabit Ethernet	1310	10/100/1000Base-T	RJ45	1000Base-LX	LC (SM)	2	10,000	13-14
UT-1316SM	Gigabit Ethernet	1310	10/100/1000Base-T	RJ45	1000Base-LX	SC (SM)	2	10,000	13-14
19" Rack mount Chassis									
UT-3012	Chassis	19" Rack-Mount 12-slot Stand alone Media Converter Chassis (AC 100-240V)							15-16
UT-3012D	Chassis	19" Rack-Mount 12-slot Stand alone Media Converter Chassis (DC -48V)							15-16
UT-3013	Power Supply	75W AC Modular Power Supply with High MTBF for UT-3012 (AC 100-240V)							15-16
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Part Number	Type	Wavelength (nm)	Port 1	Port 2		Fiber (Core)	Distance (m)	Page	
				Data Rate	Connector				
SFP, 1.25G									
UT-9125-00	Gigabit Ethernet	850	SFP	1000Base-SX	LC (MM)	2	220/550	23-24	
UT-9125-02	Gigabit Ethernet	1310	SFP	1000Base-LX	LC (MM)	2	2,000	23-24	
UT-9125-10	Gigabit Ethernet	1310	SFP	1000Base-LX	LC (SM)	2	10,000	23-24	
UT-9125-20	Gigabit Ethernet	1310	SFP	1000Base-LX	LC (SM)	2	20,000	23-24	
UT-9125-40	Gigabit Ethernet	1310	SFP	1000Base-LX	LC (SM)	2	40,000	23-24	
UT-9125-80	Gigabit Ethernet	1550	SFP	1000Base-ZX	LC (SM)	2	80,000	23-24	
UT-9125-T	Gigabit Ethernet	-	SFP	1000Base-T	RJ45 (UTP)	-	100	25-26	
XFP, 10G									
UT-9113-20	WDM Gigabit Ethernet	1310/1550	SFP	1000Base-LX	LC (SM)	1	20	27-28	
UT-9114-20	WDM Gigabit Ethernet	1550/1310	SFP	1000Base-LX	LC (SM)	1	20	27-28	
UT-9210-00	10Gigabit Ethernet	850	XFP	10GBase-SR	LC (MM)	2	300	29-30	
UT-9210-10	10Gigabit Ethernet	1310	XFP	10GBase-LR	LC (SM)	2	10,000	29-30	
UT-9210-40	10Gigabit Ethernet	1550	XFP	10GBase-ER	LC (SM)	2	40,000	29-30	
UT-9210-80	10Gigabit Ethernet	1550	XFP	10GBase-ZR	LC (SM)	2	80,000	29-30	
SFP+, 10G									
UT-9310-00	10Gigabit Ethernet	850	SFP+	10GBase-SR	LC (MM)	2	300	31-32	
UT-9310-10	10Gigabit Ethernet	1310	SFP+	10GBase-LR	LC (SM)	2	10,000	31-32	
UT-9310-40	10Gigabit Ethernet	1550	SFP+	10GBase-ER	LC (SM)	2	40,000	31-32	
UT-9310-80	10Gigabit Ethernet	1550	SFP+	10GBase-ZR	LC (SM)	2	80,000	31-32	
SFP+ Cable, 10G									
UT-9601	10Gigabit Ethernet	-	SFP+	-	-	Copper	1	33	
UT-9603	10Gigabit Ethernet	-	SFP+	-	-	Copper	3	33	
UT-9605, UT-9605A	10Gigabit Ethernet	-	SFP+	-	-	Copper	5	33	
UT-9607, UT-9607A	10Gigabit Ethernet	-	SFP+	-	-	Copper	7	33	
UT-9610, UT-9610A	10Gigabit Ethernet	-	SFP+	-	-	Copper	10	33	
UT-9615A	10Gigabit Ethernet	-	SFP+	-	-	Copper	15	33	
Part Number	Type	Wavelength (nm)	Port 1		Port 2		Fiber (Core)	Distance (m)	Page
			Connector		Connector				
RS-232 Media Converter									
UT-4004	RS-232	1310	DB9(Male)		ST (MM)		2	2,000	34-35
UT-4006	RS-232	1310	DB9(Male)		SC (MM)		2	2,000	34-35
UT-4006SM-30	RS-232	1310	DB9(Male)		SC (SM)		2	30,000	34-35
UT-4006SM-60	RS-232	1310	DB9(Male)		SC (SM)		2	60,000	34-35
UT-4206SM-100	RS485/422	1550	DB9(Male)		SC (SM)		2	100,000	34-35
UT-4006SM-120	RS-232	1550	DB9(Male)		SC (SM)		2	120,000	34-35
RS-485/422 Media Converter									
UT-4204	RS485/422	1310	Terminal Block		ST (MM)		2	2,000	36-37
UT-4206	RS485/422	1310	Terminal Block		SC (MM)		2	2,000	36-37
UT-4206SM-30	RS485/422	1310	Terminal Block		SC (SM)		2	30,000	36-37
UT-4206SM-60	RS485/422	1310	Terminal Block		SC (SM)		2	60,000	36-37
UT-4206SM-100	RS485/422	1550	Terminal Block		SC (SM)		2	100,000	36-37
UT-4206SM-120	RS485/422	1550	Terminal Block		SC (SM)		2	120,000	36-37



# UT-021X Series

## 10/100Base - TX to 100Base - FX Mini Converter



UT-0214



UT-0216



### Product Introduction & Benefits

The UT-021X series is among LINK answers to expanding existing Fast Ethernet networks. The easy implementation and expansion of 100Base-TX/FX networks can be further assured with this converter. The converter is completely transparent when connected so the network performs exactly the way it did before - only now, it allows the co - existence of both copper and fiber mediums. Added flexibility is available with ST, SC, and WDM Simplex SC connectors. Extra distances are possible with the singlemode version delivering up to 100 km connectivity per transmitted segment.

The UT-021X allows the installation of fiber cabling anywhere within a Fast Ethernet network topology by directly connecting to existing devices.

Its compact modular design facilitates deployment in a narrow desktop location to save space.

### Ordering Information :

**UT-0214** : 10/100Base - TX to 100Base - FX Multimode, Media, Converter (ST Connector, 2km)

**UT-0216** : 10/100Base - TX to 100Base - FX Multimode, Media Converter (SC Connector, 2km)

**UT-0216 - SM30/60/100 (km)** : 10/100Base - TX to 100Base - FX Single Mode, Media Converter  
(SC Connector, 30/60/100 km)

**UT-0215TS - 20/40 (km)** : 10/100Base - TX to 100Base - FX Single Mode, Single Fiber, WDM Media Converter,  
Transmitter TX1310nm/RX1550nm, (SC Simplex, 20/40km)

**UT-0215RS - 20/40 (km)** : 10/100Base - TX to 100Base - FX Single Mode, Single Fiber, WDM Media Converter,  
Receiver TX1550nm/RX1310nm, (SC Simplex, 20/40km)

\* WDM Single Fiber Converters must be installed with Transmitter and Receiver in pairs

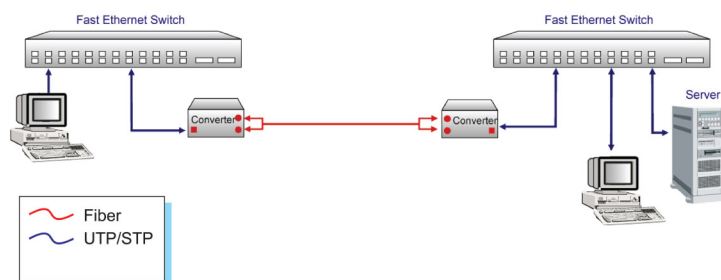
### Main Features :

- Complies with IEEE802.3 (10BASE-T), IEEE802.3u (100BASE-TX/FX)
- Extends distances ranging from 2km (multimode fiber) to 100km (singlemode fiber)
- NWay Auto-negotiation support on RJ-45 port
- Auto-Negotiation of duplex(HDX/FDX) on RJ-45 port
- Auto MDI/MDI-X support on RJ-45 port
- Status LED's for TX,FX LINK/ACT, POWER,100M to easily monitor network status
- External power supply
- FCC Class A & CE approved
- RoHS Compliant
- Included AC power adapter 220 VAC / 12 VDC, 1A



● <b>Standards :</b>	IEEE 802.3 (10BASE-T ) IEEE 802.3u (100BASE-TX/FX)
● <b>Port :</b>	UTP Connector : 1 x RJ-45 type Fiber Optic Connector : ST or SC type (Only SC type for Single Mode)
● <b>Max Distance :</b>	UTP : 100 meters (Category5/5E or better) Fiber : 2km (Multimode) 30 - 120km (Single Mode) 20 - 40km (Single Mode / Single Fiber, WDM)
● <b>Emissions :</b>	FCC Part 15 of Class A & CE approved
● <b>Weight :</b>	180 g
● <b>Dimensions :</b>	86.6 x 59.4 x 23.4 mm (D x W x H)
● <b>Power Supply :</b>	AC 100 ~ 240V 47/63Hz Input, DC 12V 1A Output
● <b>Power Consumption :</b>	2.8W
● <b>Temperature :</b>	Operating : 0° C to 50° C Storage : -25° C to 70° C
● <b>Humidity :</b>	Operating : 10% to 80% RH Storage : 5% to 90% RH
● <b>Unit LED :</b>	PWR : Green - Illuminated for normal operation TX LNK/ACT : Green - Illuminated indicates receiving link pulses from compliant copper device and flashes when data being sent / received FX LNK/ACT : Green - Illuminated indicates receiving link pulses from compliant fiber device and flashes when data being sent / received 100 : Green - Illuminated when data packets are being transmitted at 100Mbps

## Applications :



The following illustrates typical applications for the UT-021X series. The actual distances will depend on several factors including the quality of cables used and the terminal equipment employed.

# UT-021XE Series

## Enhanced 10/100Base - TX to 100Base - FX Media Converter



UT-0214E



UT-0216E



### Product Introduction & Benefits

The UT-021XE Media Converter is a cost-effective, feature-packed solution for expanding or extending an existing Ethernet/ Fast Ethernet network.

The converter boasts enhanced with such features as remote loop back testing, auto-negotiation, and link fault signaling for total reliability, It also features seven DIP switches for manual activation of the enhanced features.

This gives the UT-021XE the ability to be quickly integrated into a network configuration.

The UT-021XE can support a variety of fiber optic cables and connectors that can extend distances (up to 100km) as well as offering flexibility in the migration to 100Base - FX networks! Several converters can be simultaneously installed by using the UT-3012 12-slot 19" rack-mount chassis converter chassis.

### Ordering Information :

**UT- 0214E** : Enhanced 10/100Base-TX to 100Base-FX Multi-mode, Media Converter (ST Connector, 2km)

**UT- 0216E** : Enhanced 10/100Base-TX to 100Base-FX Multi-mode, Media Converter (SC Connector, 2km)

**UT- 0216E-SM30/60/120** : Enhanced 10/100Base-TX to 100Base-FX Single Mode, Media Converter  
(SC Connector, 30/60/120 km)

### Main Features :

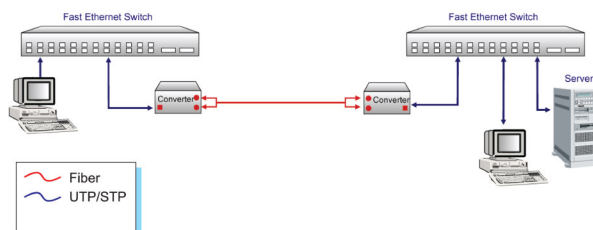
- Device DIP switches allow multiple configuration options
- Automatic MDI/MDI-X selection on RJ-45 port
- Auto-negotiation, NWay support on RJ-45
- Link Fault Signaling (LFS) Suitable for redundant link
- Remote loop back test
- LEDs for at-a-glance device status
- Extends distances ranging from 2km (multi-mode fiber) to 100km (single mode fiber)
- Store-and-forward at full wire speed
- External power supply
- FCC Class A & CE approved.
- RoHS Compliant
- Included AC power adapter 220 VAC / 12 VDC, 1A





● <b>Standards :</b>	IEEE 802.3 (10BASE-T Ethernet); IEEE 802.3u (100BASE-TX/FX Fast Ethernet)
● <b>Port :</b>	UTP Connector : 1x RJ-45 type Fiber Optic Connector : 1x SC or ST types (Only SC type for Single Mode)
● <b>Max Distance :</b>	UTP : 100 meters (Category 5/5E or better) Fiber Optic : 2km (Multimode) 30 - 120km (Singlemode)
● <b>Emissions :</b>	FCC Part 15 of Class A & CE approved
● <b>Weight :</b>	160 g
● <b>Dimensions :</b>	109.2 x 73.8 x 23.4 mm (D x W x H)
● <b>Power Supply :</b>	AC 100 ~ 240V 47/63Hz Input, DC 12V 1A Output
● <b>Power Consumption :</b>	2.8W
● <b>Temperature :</b>	Operating : 0° C to 50° C Storage : -25° C to 70° C
● <b>Humidity :</b>	Operating : 10% to 80% RH Storage : 5% to 90% RH
● <b>Unit LED :</b>	100 : Green - Illuminated when data packets are being transmitted at 100Mbps LFS : Red - Illuminated when a break or disruption exists in copper or fiber links LNK/ACT : Green - Illuminated indicates receiving link pulses from compliant device - Flashing to indicate data packets being sent / received FDX/COL : Amber - Flashing to indicate unit is in full-duplex mode - Flashing to indicate collision PWR : Green - Illuminated to indicate unit is operating under normal power
● <b>Switches :</b>	DIP 1 - Enables / disables auto-negotiation DIP 2 - Copper port (RJ45) duplex mode; full-duplex or half-duplex DIP 3 - Copper port (RJ45) data bit rate; 10Mbps or 100Mbps DIP 4 - Fiber port duplex mode; full-duplex or half-duplex DIP 5 - Enables / disables link fault signaling (LFS) DIP 6 - Enables / disables local loop back (LLBK) DIP 7 - Enables / disables remote loop back (RLBK)

## Applications :



The following illustrates typical applications for the UT-021XE series. The actual distances will depend on several factors including the quality of cables used and the terminal equipment employed.

# UT-0215E Series

## Enhanced 10/100Base - TX to 100Base - FX Media Converter



UT-0215ETS



### Product Introduction & Benefits

The UT-021XE Media Converter is a cost - effective, feature-packed solution for expanding or extending an existing Ethernet/ Fast Ethernet network. The converter boasts enhanced with such features as remote loop back testing, auto - negotiation, and link fault signaling for total reliability, It also features seven DIP switches for manual activation of the enhanced features. This gives the UT-021XE the ability to be quickly integrated into a network configuration.

The UT-021XE can support a variety of fiber optic cables and connectors that can extend distances (up to 100km) as well as offering flexibility in the migration to 100Base - FX networks! Several converters can be simultaneously installed by using the UT-3012 12-slot 19" rack-mount chassis converter chassis.

### Ordering Information :

**UT-0215ETS-20 (km) :** Enhanced 10/100Base-TX to 100Base-FX Single Mode, Single Fiber, WDM Media Converter, Transmitter TX1310nm/RX1550nm, (SC Simplex, 20km)

**UT-0215ERS-20 (km) :** Enhanced 10/100Base-TX to 100Base-FX Single Mode, Single Fiber, WDM Media Converter, Receiver TX1550nm/RX1310nm, (SC Simplex, 20km)

**UT-0215ETS-40 (km) :** Enhanced 10/100Base-TX to 100Base-FX Single Mode, Single Fiber, WDM Media Converter, Transmitter TX1310nm/RX1550nm, (SC Simplex, 40km)

**UT-0215ERS-40 (km) :** Enhanced 10/100Base-TX to 100Base-FX Single Mode, Single Fiber, WDM Media Converter, Receiver TX1550nm/RX1310nm, (SC Simplex, 40km)

\* WDM Single Fiber Converters must be installed with Transmitter and Receiver in pairs

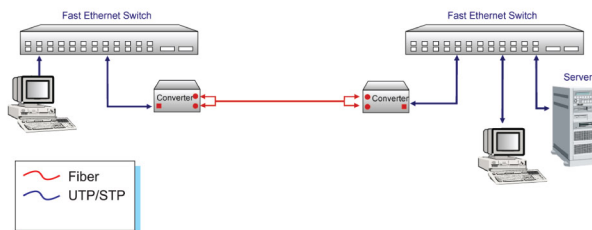
### Main Features :

- Device DIP switches allow multiple configuration options
- Automatic MDI/MDI-X selection on RJ-45 port
- Auto-negotiation, NWay support on RJ-45
- Link Fault Signaling (LFS) Suitable for redundant link
- Remote loop back test
- LEDs for at-a-glance device status
- Extends distances ranging from 2km (multi-mode fiber) to 100km (single mode fiber)
- Store-and-forward at full wire speed
- External power supply
- FCC Class A & CE approved.
- RoHS Compliant
- Included AC power adapter 220 VAC / 12 VDC, 1A



● <b>Standard :</b>	IEEE 802.3 (10BASE-T Ethernet); IEEE 802.3u (100BASE-TX/FX Fast Ethernet)
● <b>Port :</b>	UTP Connector : 1x RJ-45 type Fiber Optic Connector : 1x SC or ST types (Only SC type for Single Mode)
● <b>Max Distance :</b>	UTP : 100 meters (Category 5/5E or better) Fiber Optic : 20 - 40km (Singlemode, Single Fiber, WDM)
● <b>Emissions :</b>	FCC Part 15 of Class A & CE approved
● <b>Weight :</b>	160 g
● <b>Dimensions :</b>	109.2 x 73.8 x 23.4 mm (D x W x H)
● <b>Power Supply :</b>	AC 100 ~ 240V 47/63Hz Input, DC 12V 1A Output
● <b>Power Consumption :</b>	2.8W
● <b>Temperature :</b>	Operating : 0° C to 50° C Storage : -25° C to 70° C
● <b>Humidity :</b>	Operating : 10% to 80% RH Storage : 5% to 90% RH
● <b>Unit LED :</b>	100 : Green - Illuminated when data packets are being transmitted at 100Mbps LFS : Red - Illuminated when a break or disruption exists in copper or fiber links LNK/ACT : Green - Illuminated indicates receiving link pulses from compliant device - Flashing to indicate data packets being sent / received FDX/COL : Amber - Flashing to indicate unit is in full-duplex mode - Flashing to indicate collision PWR : Green - Illuminated to indicate unit is operating under normal power
● <b>Switches :</b>	DIP 1 - Enables / disables auto-negotiation DIP 2 - Copper port (RJ45) duplex mode; full-duplex or half-duplex DIP 3 - Copper port (RJ45) data bit rate; 10Mbps or 100Mbps DIP 4 - Fiber port duplex mode; full-duplex or half-duplex DIP 5 - Enables / disables link fault signaling (LFS) DIP 6 - Enables / disables local loop back (LLBK) DIP 7 - Enables / disables remote loop back (RLBK)

## Applications :



The following illustrates typical applications for the UT-021XE series. The actual distances will depend on several factors including the quality of cables used and the terminal equipment employed.



# UT-0216AI Series

10/100Base - TX to 100Base - FX Industrial Media Converter



UT-0216AI

## Product Introduction & Benefits

UT-0216AI Series is 10/100Base-TX to 100Base-FX Industrial Fast Ethernet Media Converter. The UTP port can operation at 10M or 100M application.

UT-0216AI Series is packaged in a special compact IP40 metal case that allows either DIN rail or panel mounting for easy installation at control cabinet. It provides an integrated power supply with a wide range of voltages for worldwide operation. It also offers dual-redundant, reversible polarity 12V DC to 48V DC power supply inputs for high availability applications requiring dual or backup power inputs.



## Ordering Information :

**UT-0216AI** : 10/100Base-TX to 100Base-FX Multimode Industrial Media Converter, 2km

**UT-0216AI-SM20** : 10/100Base-TX to 100Base-FX Singlemode Industrial Media Converter, 20km

**UT-0216AI-SM40** : 10/100Base-TX to 100Base-FX Singlemode Industrial Media Converter, 40km

**UT-0216AI-SM60** : 10/100Base-TX to 100Base-FX Singlemode Industrial Media Converter, 60km

**UT-0216AI-SM80** : 10/100Base-TX to 100Base-FX Singlemode Industrial Media Converter, 80km

**UT-0216AI-SM100** : 10/100Base-TX to 100Base-FX Singlemode Industrial Media Converter, 100km

**UT-0216AI-SM120** : 10/100Base-TX to 100Base-FX Singlemode Industrial Media Converter, 120km

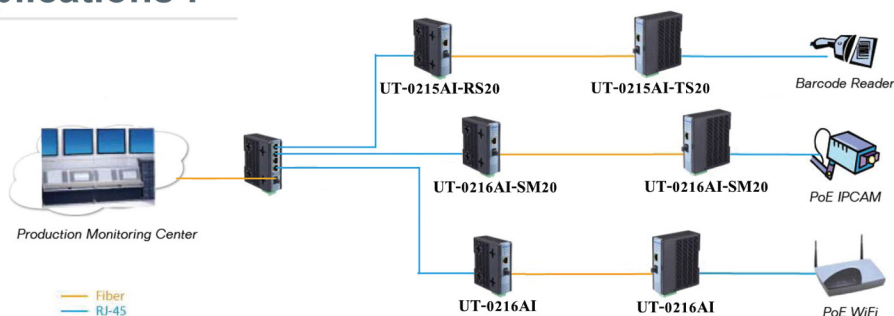
## Main Features :

- Built-in efficient switching core to implement flow control and reduce broadcast packets
- Standard : IEEE802.3u 100BASE-FX/TX, IEEE802.3 10BASE-T, IEEE802.3x Flow Control.
- 10/100Base-TX can automatically identify the direct-line(MDI) and cross-line(MDIX), is compatible with Various cards, switches, HUB and other Ethernet devices
- It applies a store-and-forward mechanism to avoid packet loss and error frames
- Support wire-speed transmission and full-duplex flow control / half-duplex back pressure mode
- Support jumbo frame up to 9K(cut-through mode)
- 12V to 48V DC or 24V AC Wide power input, redundant power and reverse polarity protection
- -40 to 80°C operating temperature to meet a variety of complex environments
- IP40 protection standard for housing
- Power port and Ethernet port supports ESD protection and EFT protection
- DIN rail and panel mounting for easy installation
- Support dual-fiber multimode and single-mode
- Support DIP switches for operation mode setting



● <b>Standard :</b>	IEEE802.3u 100BASE-FX/TX (Fast Ethernet) IEEE802.3 10BASE-T(Ethernet) IEEE802.3x Flow Control
● <b>Port :</b>	UTP/STP Connector : 1 x RJ45 Type Fiber Optic Connector : 1 x SC Type
● <b>Design Level :</b>	Industrial grade IP40 design standards
● <b>Access mode :</b>	10/100Mbps
● <b>Wavelength :</b>	1310 and 1550nm
● <b>Transmission distance :</b>	Fiber Optic : 2km (Multimode) 20 - 120km (Single mode) UTP/STP : 100m (Category5/5E or better)
● <b>Conversion mechanism :</b>	Store and Forward mode or Cut-Through mode
● <b>MAC address table :</b>	1K
● <b>Buffer space :</b>	Built in 288Kb RAM for data buffer
● <b>Flow control :</b>	Full duplex : flow control Half duplex : back pressure
● <b>BER :</b>	$<10^{-9}$
● <b>MTBF :</b>	50,000 hours
● <b>LED indicator :</b>	Power Supply : PWR 1, PWR 2 UTP Port : POE1, L/A, 100M Fiber Port : F1
● <b>Power supply :</b>	Power Input Range : 12 ~ 48VDC/24VAC, 6-PIN Terminals, Redundant dual power
● <b>Power consumption :</b>	<3W
● <b>Operating temperature :</b>	- 40~80°C
● <b>Operating humidity :</b>	5%~90% non-condensing
● <b>Storage Temperature :</b>	- 40~85°C
● <b>Storage humidity :</b>	5%~90% non-condensing
● <b>Dimensions :</b>	140mm (W)×110mm (D)×40mm (H)
● <b>Weight :</b>	0.8kg

## Applications :





# UT-0215AI Series

10/100Base - TX to 100Base - FX WDM Industrial Media Converter



UT-0215AI



## Product Introduction & Benefits

UT-0215AI Series is 10/100Base-TX to 100Base-FX Industrial Fast Ethernet Media Converter. The UTP port can operate at 10M or 100M application.

UT-0215AI Series is packaged in a special compact IP40 metal case that allows either DIN rail or panel mounting for easy installation at control cabinet. It provides an integrated power supply with a wide range of voltages for worldwide operation. It also offers dual-redundant, reversible polarity 12V DC to 48V DC power supply inputs for high availability applications requiring dual or backup power inputs.

## Ordering Information :

**UT-0215AI-TS20** : 10/100Base-TX to 100Base-FX Singlemode, Single Fiber, WDM Industrial Media Converter, Transmitter 20km, TX1310nm/RX1550nm, SC Simplex

**UT-0215AI-RS20** : 10/100Base-TX to 100Base-FX Singlemode, Single Fiber, WDM Industrial Media Converter, Receiver 20km, RX1310nm/TX1550nm, SC Simplex

**UT-0215AI-TS40** : 10/100Base-TX to 100Base-FX Singlemode, Single Fiber, WDM Industrial Media Converter, Transmitter 40km, TX1310nm/RX1550nm, SC Simplex

**UT-0215AI-RS40** : 10/100Base-TX to 100Base-FX Singlemode, Single Fiber, WDM Industrial Media Converter, Receiver 40km, RX1310nm/TX1550nm, SC Simplex

## Main Features :

- Built-in efficient switching core to implement flow control and reduce broadcast packets
- Standard : IEEE802.3u 100BASE-FX/TX, IEEE802.3 10BASE-T, IEEE802.3x Flow Control.
- 10/100Base-TX can automatically identify the direct-line(MDI) and cross-line(MDIX), is compatible with Various cards, switches, HUB and other Ethernet devices
- It applies a store-and-forward mechanism to avoid packet loss and error frames
- Support wire-speed transmission and full-duplex flow control / half-duplex back pressure mode
- Support jumbo frame up to 9K(cut-through mode)
- 12V to 48V DC or 24V AC Wide power input, redundant power and reverse polarity protection
- -40 to 80°C operating temperature to meet a variety of complex environments
- IP40 protection standard for housing
- Power port and Ethernet port supports ESD protection and EFT protection
- DIN rail and panel mounting for easy installation
- Support single-fiber single-mode
- Support DIP switches for operation mode setting

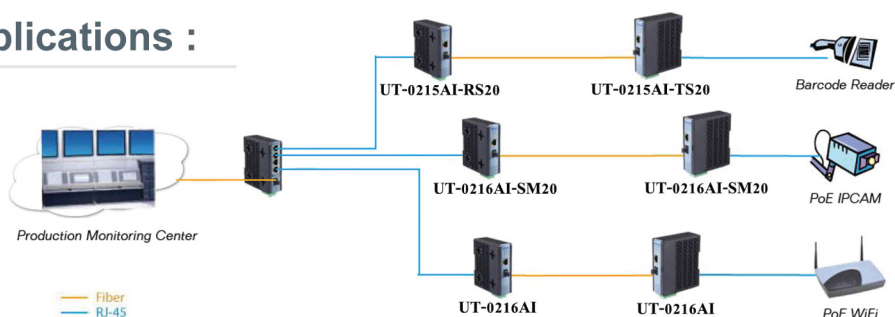
NWay Auto-negotiation support on RJ-45 Port (UTP Port)





● <b>Standard :</b>	IEEE802.3u 100BASE-FX/TX (Fast Ethernet) IEEE802.3 10BASE-T(Ethernet) IEEE802.3x Flow Control
● <b>Port :</b>	UTP/STP Connector : 1 x RJ45 Type Fiber Optic Connector : 1 x SC Simplex Type
● <b>Design Level :</b>	Industrial grade IP40 design standards
● <b>Access mode :</b>	10/100Mbps
● <b>Wavelength :</b>	Transmitter : TX1310nm/RX1550nm Receiver : RX1310nm/TX1550nm
● <b>Transmission distance :</b>	Fiber Optic : 20- 40km (Single mode) UTP/STP : 100m (Category5/5E or better)
● <b>Conversion mechanism :</b>	Store and Forward mode or Cut-Through mode
● <b>MAC address table :</b>	1K
● <b>Buffer space :</b>	Built in 288Kb RAM for data buffer
● <b>Flow control :</b>	Full duplex : flow control Half duplex : back pressure
● <b>BER :</b>	$<10^{-9}$
● <b>MTBF :</b>	50,000 hours
● <b>LED indicator :</b>	Power Supply : PWR 1, PWR 2 UTP Port : POE1, L/A, 100M Fiber Port : F1
● <b>Power supply :</b>	Power Input Range : 12 ~ 48VDC/24VAC, 6-PIN Terminals, Redundant dual power
● <b>Transmit Power (dBm) :</b>	-7 ~ -14
● <b>Receive Sensitivity (dBm) :</b>	24
● <b>Power consumption :</b>	<3W
● <b>Operating temperature :</b>	-40~80°C
● <b>Operating humidity :</b>	5%~90% non-condensing
● <b>Storage Temperature :</b>	-40~85°C
● <b>Storage humidity :</b>	5%~90% non-condensing
● <b>Dimensions :</b>	140mm (W)×110mm (D)×40mm (H)
● <b>Weight :</b>	0.8kg

## Applications :



# UT-1310 Series

## 10/100/1000Base-T to 1000Base-SX/LX (SFP) Converter



UT-1310



UT-1314



### Product Introduction & Benefits

The UT-1310 media converter is specifically designed to offer fiber advantages for mission - critical networks like Telco/ISP backbones, cable operators, banking and enterprise networks.

The UT-1310 can reduce network downtime and increase Quality of Service levels. The converters are completely transparent when installed, so the network performs exactly the way it would do normally-only now, it can incorporate both copper and fiber mediums. This flexibility in cabling allows network managers to put fiber cables anywhere within a network without changing the arrangement of the copper-based Gigabit segments.

Their compact size allows the converters to be wall-mounted to save space. Several converters can be simultaneously installed by using the UT-3012 12-slot, 19" rack-mountable chassis.

The UT-1310 takes advantage of intelligent connection technology to support Auto-negotiation, thereby eliminating the hassle of manually configuring or monitoring settings.

This ensures plug-n-play operability.

### Ordering Information :

**UT-1310** : 10/100/1000Base-T to 1000Base-SX/LX (SFP) Converter, without SFP

**UT-1314** : 10/100/1000Base-T to 1000Base-SX (SFP) Converter, with SFP(UT-9104)

**UT-1314-10** : 10/100/1000Base-T to 1000Base-LX (SFP) Converter, with SFP(UT-9104-10)

**UT-9104** : Mini GBIC, 1.25G SFP-type Multimode, 3.3V, 220/550m

**UT-9104-10/30/50/70/110Km** : Mini GBIC, 1.25G SFP-type Singlemode, 3.3V - 10/30/50/70/110km

### Main Features :

#### Standards :

- Complies with IEEE 10/100Base-TX, IEEE 802.3ab 1000Base-T
- and IEEE 802.3z 1000Base-SX/LX standards

#### Interface :

- One 10/100/1000 Mbps Ethernet port
- Auto MDI/MDI-X support on RJ-45 port
- One SFP slot for Gigabit links
- Extends distances up to 220m for multi-mode SX (110km with long-haul singlemode) under full-duplex mode

#### Management :

- Link Fault Signaling (LFS) Suitable for redundancy link
- Alarm LED illuminates to indicate link failure
- Status LEDs for easy monitoring of device's status

#### Mechanical & Environmental :

- External power supply
- Chassis-compliant (internal power supply)
- FCC Class A & CE approved
- RoHS Compliant
- Included AC power adapter 220 VAC / 12 VDC, 1A



## Standards :

IEEE 802.3 10Base-T  
IEEE 802.3u 100Base-TX  
IEEE 802.3ab 1000Base-T  
IEEE 802.3z 1000Base-SX/LX

## Port :

UTP Connector : 1x RJ-45 type  
Fiber Optic Connector : 1x SFP type

## Max Distance :

UTP : 100 meters (Cat. 5/5e or better)  
Fiber Optic : SFP ; 220/550m, (Multi Mode)  
; 10 - 110km, (Single Mode)

## Emissions :

FCC Part 15 of Class A & CE approved

## Weight :

150~160g

## Dimensions :

109.2 x 73.8 x 23.4 mm (D x W x H)

## Dip Switch :

DIP 1 - LFS : Enable/disable Link-Fault Signaling (LFS)  
DIP 2 - RSV : Reserve

## Power Supply :

AC 100 ~ 240V 47/63Hz Input,  
DC 12V 1A Output

## Power Consumption :

5.3W

## Temperature :

Operating : 0°C to 50°C  
Storage : -20°C to 70°C

## Humidity :

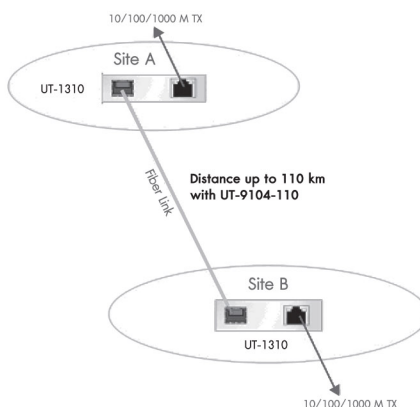
Operating : 10% to 80% RH  
Storage : 5% to 90% RH

## Unit LED :

1000 : Green - Illuminated when data packets are being transmitted at 1000Mbps  
LFS : Red - Illuminated when failure occurs on fiber or copper link  
LNK/ACT : Green - Illuminated when receiving link pulses from compliant devices  
- Flashing when data packets are being transmitted / received  
PWR : Green - Illuminated for normal operation



## Applications :



The diagram on the left illustrates a typical application for the UT-1310 converter.

The actual distances will depend on several factors, including the quality of cables used and the terminal equipment employed.



# UT-1316 Series

10/100/1000Base - T to 1000Base - SX/LX Media Converter



## Product Introduction & Benefits



UT-1316

The UT-1316 media converter is specifically designed to offer fiber advantages for mission-critical networks like Telco/ISP back bones, cable operators, banking and enterprise networks. The UT-1316 can reduce network downtime and increase Quality of Service levels. The converters are completely transparent when installed, so the network performs exactly the way it would do normally-only now, it can incorporate both copper and fiber mediums.

This flexibility in cabling allows network managers to put fiber cables anywhere within a network without changing the arrangement of the copper-based Gigabit segments. Their compact size allows the converters to be wall-mounted to save space.

Several converters can be simultaneously installed by using the UT-3012 12-slot, 19" rack-mountable chassis. The UT-1316 takes advantage of intelligent connection technology to support Auto-negotiation, thereby eliminating the hassle of manually configuring or monitoring settings. This ensures plug-n-play operability.



## Ordering Information :

**UT- 1316** : 10/100/1000Base-T to 1000Base-SX Multi-mode, Media Converter (SC Connector, 220/550km)

**UT- 1316SM** : 10/100/1000Base-T to 1000Base-LX Multi-mode, Media Converter (SC Connector, 10km)

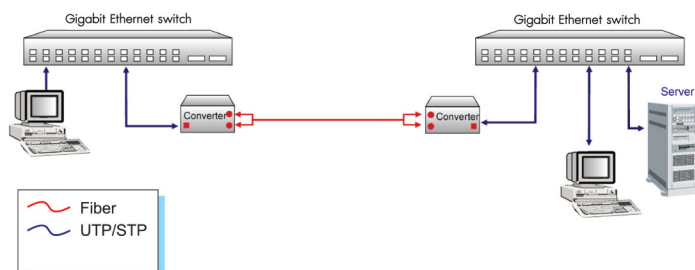
## Main Features :

- One 10/100/1000 Mbps Ethernet port
- Automatic MDI/MDI-X selection on RJ-45 port
- Auto-negotiation, NWay support on RJ-45
- One 1000Base-SX/LX for Gigabit links
- Link Fault Signaling (LFS) Suitable for redundancy link
- Status LEDs for easy monitoring of device's status
- Extends distances ranging from 220/550m (multi-mode fiber) to 10km (single mode fiber)
- Store-and-forward at full wire speed
- External power supply
- FCC Class A & CE approved.
- RoHS Compliant
- Included AC power adapter 220 VAC / 12 VDC, 1A



● <b>Standards :</b>	IEEE 802.3 (10BASE-T Ethernet); IEEE 802.3u (100BASE-TX Fast Ethernet) IEEE 802.3ab (1000BASE-T Gigabit Ethernet) IEEE 802.3z (1000BASE-SX/LX Gigabit Ethernet)
● <b>Port :</b>	UTP Connector : 1x RJ-45 type Fiber Optic Connector : 1x SC types
● <b>Max Distance :</b>	UTP : 100 meters (Category 5/5E or better) Fiber Optic : 220/550m (Multimode) 10km (Singlemode)
● <b>Emissions :</b>	FCC Part 15 of Class A & CE approved
● <b>Weight :</b>	150 - 160 g
● <b>Dimensions :</b>	109.2 x 73.8 x 23.4 mm (D x W x H)
● <b>Dip Switch :</b>	DIP 1 - LFS : Enables / disables link fault signaling (LFS) DIP 2 - RSV : Reserve
● <b>Power Supply :</b>	AC 100 ~ 240V 47/63Hz Input, DC 12V 1A Output
● <b>Power Consumption :</b>	5.3W
● <b>Temperature :</b>	Operating : 0°C to 50°C Storage : -20°C to 70°C
● <b>Humidity :</b>	Operating : 10% to 80% RH Storage : 5% to 90% RH
● <b>Unit LED :</b>	1000 : Green - Illuminated when data packets are being transmitted at 1000Mbps LFS : Red - Illuminated when a break or disruption exists in copper or fiber links LNK/ACT : Green - Illuminated indicates receiving link pulses from compliant device - Flashing to indicate data packets being sent / received PWR : Green - Illuminated to indicate unit is operating under normal power

## Applications :



The following illustrates typical applications for the UT-1316 series. The actual distances will depend on several factors including the quality of cables used and the terminal equipment employed.

# UT-3012

## 19" Rack-mount 12-slot Stand alone Media Converter Chassis



UT-3013



UT-3013D



UT-3012  
(Media Converter not included)



### Product Introduction & Benefits

The UT-3012 is a highly engineered product designed to offer a lifetime of operation. Incorporated in the chassis are three long life cooling fans to ensure a cool operating environment. Each fan is monitored and connected to the LED status panel mounted on the front. The LEDs indicates when power is supplied to each module and that the fans are functioning correctly. Ideal for mission critical networks such as Enterprises, Banks, the Military, etc.

The chassis comes with two high quality hot swappable power supply. Either power unit can be removed without disturbing the chassis operation - offering total efficiency, maximum redundancy and minimum down time. Each converter is supplied from a common shared power bus - but as an added precaution, each is individually protected in the event of a problem on the bus or from power surges. Each converter can be removed or loaded without powering down. The power supply also features a "trigger guard" to prevent the unit from being accidentally switching off.

### Ordering Information :

**UT-3012** : 19" Rack-Mount 12-slot Stand alone Media Converter Chassis (AC 100-240V)

**UT-3013** : 75W AC Modular Power Supply with High MTBF for UT-3012 (AC 100-240V)

**UT-3012D** : 19" Rack-Mount 12-slot Stand alone Media Converter Chassis (DC -48V)

**UT-3013D** : 75W DC-48V Modular Power Supply for UT-3012D (DC -48V)

### Main Features :

- Accommodates up to 12 media converters operating under different protocols
- Supports two load sharing, hot swappable power supplies
- ON/OFF trigger guard protection on power switch
- Three serviceable high volume cooling fans
- LED status panel with fan and slot and power LEDs
- Supports slot power isolation
- Supports 10/100/1000Base-TX/FX, ATM-155/622 and serial converters
- Prevents network downtime and protects your converter investments
- Available in AC 100 - 240V with AC Socket or DC -48V with terminal block
- RoHs Compliant





## Chassis Specs

<b>Capacity :</b>	Twelve (12) slots
<b>Chassis :</b>	Aluminum/steel
<b>Power :</b>	Two (2) power supplies, load sharing, hot swappable
<b>LEDs :</b>	3, red -for fan status,12, green -for slot power status, 1, red -for each power supply
<b>Cooling :</b>	Three 42.5 cfm rear-mount fans
<b>Dimensions :</b>	430 x 290 x 133 mm (L x W x H) (EIA 3U)
<b>Weigh :</b>	9 kg (with 12 converters, one power supply)

## Power Supply Specs for AC (UT-3013)

<b>AC Input :</b>	100-240V AC@ 47-63 Hz
<b>DC Output :</b>	Norm.+12V, Min.+11.88V, Max+12.12V
<b>Load :</b>	Min.0A, Full 6.4A
<b>Total Reg. :</b>	±1.0%, Rip.120 mV, Load 1.0%, Line 0.5%
<b>Overload Protection :</b>	All outputs protected against short circuit conditions-automatic recovery
<b>Over Volts Protection :</b>	Output level exceeding +13.2V causes shutdown-automatic recovery
<b>Temperature :</b>	Operation : 0°C to 50°C Storage : -55°C to 85°C
<b>Humidity :</b>	Operating : 10% to 80% RH Storage : 5% to 90% RH
<b>EMI :</b>	FCC Part 15 Class A & CE Safety UL 1950, CSA 234, 22.2, TUV En60950

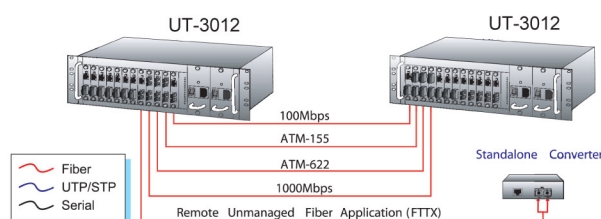
## Power Supply Specs for DC -48V (UT-3013D)

<b>DC Input :</b>	-48V ±10%
<b>DC Output :</b>	Norm.+12V, Min.+11.76V, Max+12.24V, 75 Watts
<b>Load :</b>	Min. 0A, Full 6.4A
<b>Total Reg. :</b>	±2.0%, Rip.120 mV, Load 2.0%, Line 1.0%
<b>Overload Protection :</b>	Outputs protected against short circuit conditions-automatic recovery
<b>Over Volts Protection :</b>	Output level exceeding +13.2V causes shutdown-automatic recovery
<b>Temperature :</b>	Operation : 0°C to 50°C Storage : -55°C to 85°C
<b>Humidity :</b>	Operating : 10% to 80% RH Storage : 5% to 90% RH

## Fans Specs

<b>Speed :</b>	2510 rpm ±250, Delivery 42.5 ft3 Per Min.
<b>Noise Level :</b>	36.5 dB(A)
<b>Bearing :</b>	Precise ball bearing

## Applications :



The following illustrates typical applications for the UT-3012 series. The actual distances will depend on several factors including the quality of cables used and the terminal equipment employed.

# UT-0217 Series

## 10/100Base-TX to 100Base-FX IP CCTV Media converter



### Product Introduction & Benefits



UT-0217

The UT-0217 Series Fast Ethernet IP CCTV Media Converter which provides an affordable solution for outdoor locations, especially designed for rugged and harsh industrial environments where require the extended temperature, longer distance and small space. By converting copper to fiber connection, the UT-0217 Series enables to extend Fast Ethernet connection over optical fiber links between two fast Ethernet twisted pair devices in distance up to 2km (multimode fiber) or 30km (single-mode fiber) without performance degradation.

This point-to-point product meets all requirements to extend LAN distances communicate with remotely located Ethernet enabled devices. Other than that, the UT-0217 Series is equipped with Link Fault Signaling (LFS) which is used to indicate whether the fiber has been cut; letting the user know there is a problem that needs to be fixed right away. The typical application for the UT-0217 Series can be used in places where hardened converters can be used for a long time such as IP Cams and Wi-Fi applications.



### Ordering Information :

**UT-0217** : 10/100 Base-TX to 100Base-FX Multimode IP CCTV Media Converter, 2Km, SC

**UT-0217-SM30** : 10/100 Base-TX to 100Base-FX Single mode IP CCTV Media Converter, 30Km, SC

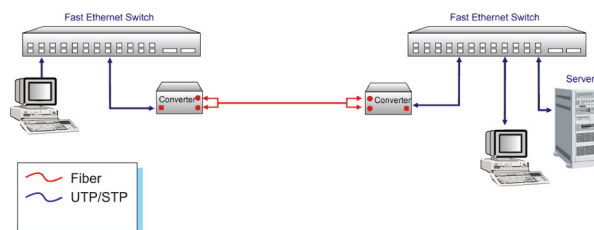
### Main Features :

- One 10/100 Mbps Ethernet Port One
- 100Base-FX Fiber Port Auto MDI/MDI-X Support on RJ-45
- Extends distance up to 550m for Multi-mode SX under full duplex mode
- Distances of 110km with long-haul single-mode under full duplex mode
- Link Fault Signaling (LFS) Suitable for redundancy link
- LFS Led Illuminates to indicate link failure
- Status LED's for easy monitoring of device status
- PWR : Illuminated for normal operation
- LFS : Illuminated when failure occurs on fiber or copper link
- LNK/ACT: Fiber / Copper Link
- Illuminated - when receiving link pulses from compliant devices
- Flashing - when data packets are being transmitted / received



● <b>Standards :</b>	IEEE 802.3 (10BASE-T Ethernet); IEEE 802.3u (100BASE-TX/FX Fast Ethernet)
● <b>Port :</b>	UTP Connector : 1x RJ-45 type Fiber Optic Connector : 1x SC or ST types (Only SC type for Single Mode)
● <b>Max Distance :</b>	UTP : 100 meters (Category 5/5E or better) Fiber Optic : 2km (Multimode) 30 - 100km (Singlemode)
● <b>Emissions :</b>	FCC Part 15 of Class A & CE approved
● <b>Weight :</b>	158 g
● <b>Dimensions :</b>	109.2 x 73.8 x 23.4 mm (D x W x H)
● <b>Power Supply :</b>	AC 100 ~ 240V 47/63Hz Input, DC 12V 1A Output
● <b>Power Consumption :</b>	2.8W
● <b>Temperature :</b>	Operating : 0° C to 50° C Storage : -20° C to 70° C
● <b>Humidity :</b>	Operating : 10% to 80% RH Storage : 5% to 90% RH
● <b>Unit LED :</b>	100 : Green - Illuminated when data packets are being transmitted at 100Mbps LFS : Red - Illuminated when a break or disruption exists in copper or fiber links LNK/ACT : Green - Illuminated indicates receiving link pulses from compliant device - Flashing to indicate data packets being sent / received FDX/COL : Amber - Flashing to indicate unit is in full-duplex mode - Flashing to indicate collision PWR : Green - Illuminated to indicate unit is operating under normal power
● <b>Switches :</b>	DIP 1 - Enables / disables auto-negotiation DIP 2 - Copper port (RJ45) duplex mode; full-duplex or half-duplex DIP 3 - Copper port (RJ45) data bit rate; 10Mbps or 100Mbps DIP 4 - Fiber port duplex mode; full-duplex or half-duplex DIP 5 - Enables / disables link fault signaling (LFS) DIP 6 - Enables / disables local loop back (LLBK) DIP 7 - Enables / disables remote loop back (RLBK)
● <b>Mechanical :</b>	Operating Temperature -20°C to 60°C Storage Temperature -40°C to 85°C Operating Humidity 10% to 80% RH Storage Humidity 5% to 90% RH Chassis Compliant External Power adapter

## Applications :



The diagram below illustrates a typical application for the UT-0217 Series converter. The actual distances will depend on several factors, including the quality of cables used and the terminal equipment employed.



# UT-1317 Series

10/100/1000Base-T to Gigabit SFP IP CCTV Media converter



## Product Introduction & Benefits



UT-1317

The UT-1317 Series Gigabit IP CCTV Media Converter which provides an affordable solution for outdoor locations, especially designed for rugged and harsh industrial environments where require the extended temperature, longer distance and small space. By converting copper to fiber connection, the UT-1317 Series enables to extend Gigabit Ethernet connection over optical fiber links between two twisted pair devices in much long distances up to 500m (multimode fiber), 10km (single-mode fiber) or 110km (SFP module) without performance degradation.

This point-to-point product meets all requirements to extend LAN distances communicate with remotely located Ethernet enabled devices. Other than that, the UT-1317 Series is equipped with Link Fault Signaling (LFS) which is used to indicate whether the fiber has been cut; letting the user know there is a problem that needs to be fixed right away.

The typical application for the UT-1317 Series can be used in places where converters can be used for a long time such as IP Cams and Wi-Fi applications.



## Ordering Information :

**UT-1317** : 10/100/1000 to Gigabit SFP Multimode IP CCTV Media Converter, 220/550 m

**UT-1317SM** : 10/100/1000 to Gigabit SFP Singlemode IP CCTV Media Converter, 10K m

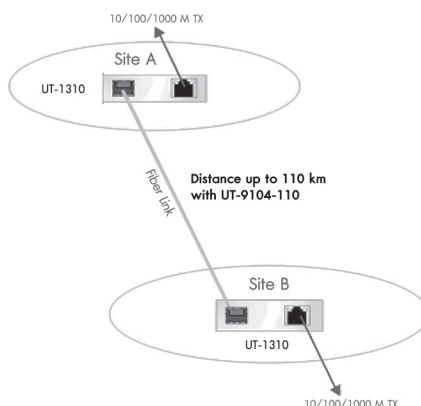
## Main Features :

- One 10/100/1000 Mbps Ethernet port
- One 1000Base-SX/LX for Gigabit links
- Auto MDI/MDI-X Support on RJ-45
- Extends distance up to 550m for Multi-mode SX under full duplex mode
- Distances of 110km with long-haul single-mode under full duplex mode
- Link Fault Signaling (LFS) Suitable for redundantcy link
- LFS Led Illuminates to indicate link failure
- Status LED's for easy monitoring of device status
- PWR : Illuminated for normal operation
- LFS : Illuminated when failure occurs on fiber or copper link
- LNK/ACT : Fiber / Copper Link
- Illuminated - when receiving link pulses from compliant devices
- Flashing - when data packets are being transmitted / received



● <b>Standards :</b>	IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX IEEE 802.3ab 1000Base-T IEEE 802.3z 1000Base-SX/LX
● <b>Port :</b>	UTP Connector : 1x RJ-45 type Fiber Optic Connector : 1x SFP type
● <b>Max Distance :</b>	UTP : 100 meters (Cat. 5/5e or better) Fiber Optic : SFP ; 220/550m, (Multi Mode) ; 10 - 110km, (Single Mode)
● <b>Emissions :</b>	FCC Part 15 of Class A & CE approved
● <b>Weight :</b>	150~160g
● <b>Dimensions :</b>	109.2 x 73.8 x 23.4 mm (D x W x H)
● <b>Dip Switch :</b>	DIP 1 - LFS : Enable/disable Link-Fault Singnaling (LFS) DIP 2 - RSV : Reserve
● <b>Power Supply :</b>	AC 100 ~ 240V 47/63Hz Input, DC 12V 1A Output
● <b>Power Consumption :</b>	5.3W
● <b>Temperature :</b>	Operating : 0°C to 50°C Storage : -20°C to 70°C
● <b>Humidity :</b>	Operating : 10% to 80% RH Storage : 5% to 90% RH
● <b>Unit LED :</b>	1000 : Green - Illuminated when data packets are being transmitted at 1000Mbps LFS : Red - Illuminated when failure occurs on fiber or copper link LNK/ACT : Green - Illuminated when receiving link pulses from compliant devices - Flashing when data packets are being transmitted / received PWR : Green - Illuminated for normal operation
<b>Mechanical :</b>	Operating Temperature -20°C to 60°C Storage Temperature -40°C to 85°C Operating Humidity 10% to 80% RH Storage Humidity 5% to 90% RH Chassis Compliant External Power adapter

## Applications :



The diagram below illustrates a typical application for the UT-1317 Series converter. The actual distances will depend on several factors, including the quality of cables used and the terminal equipment employed.



# UT-1319 Series

5-port 10/100/1000BASE-T + 1 SFP Gigabit IP CCTV  
Converter Managed Hardened with PoE



UT-1319



## Product Introduction & Benefits

The UT-1319 Series is a Lite Managed Hardened PoE Ethernet perfectly suited for extreme industrial environments and an ideal solution to deploy surveillance systems. Designed to meet the requirements of both power and data transmission over single Ethernet cable to PoE appliances and devices without the need for power outlets, eliminating additional cost of electrical cabling and circuits. UT-1319 Series is rugged case and hardened components withstand high degree of vibration, shock and wide operating temperatures from -20°C to 60°C.

features 5 10/100/1000Base-T ports and 1 Gigabit SFP slot to satisfy new and evolving network demands in longer distances via its fiber port. With 4 IEEE 802.3at compliant ports, each of them allows to supply up to 30W in controllable ways to satisfy the growing demand of high power consuming network devices such as WLAN AP, VoIP phones and IP surveillance cameras, and other powered devices in longer distances up to 100 meters with Cat 5 cables.

In addition, also facilitate with its build-in basic software features such as QoS, VLAN tagging, RMON and other network function & management to deliver a rock solid, adjustable network to down port networks, ensure impressive uptime even in the most challenging network conditions.

## Ordering Information :

**UT-1319** : 5-port 10/100/1000BASE-T + 1 SFP Gigabit Multimode IP CCTV Converter Managed Hardened with PoE

**UT-1319-SM10** : 5-port 10/100/1000BASE-T + 1 SFP Gigabit Singlemode IP CCTV Converter Managed Hardened with PoE

## Main Features :

- PoE Function : Total PoE power budget control Per port PoE enable/disable PoE Port power feeding priority Per PoE port power limit PD classification detection PoE Schedule PD live check PD reboot (with counter) Alarm (syslog, E-mail) PD (reboot & Alarm)
- Network Function : IGMP snooping (v1/v2/v3) Ethernet-like MIB (RFC 3635) Interface Group MIB (RFC 2863) RMON (RFC 2819)
- Network Management : Web-based management GUI with Password-Protected Access SNMP v1, v2c SNMP Trap Firmware upgrade by TFTP/HTTP/FTP Simple Network Time Protocol Web displays each port's an image Auto negotiation status Alarm / Status Surveillance E-mail Alarm Syslog
- Traffic Management and QoS : 4 QoS queues per port Traffic Classification Scheduler SP/WFQ/WRR Broadcast Storm Control Bandwidth Control IEEE 802.1Q tag-based Port-based VLAN MAC-based VLAN 4K-entry 256 static VLAN Table





## Standards :

IEEE 802.3	10Base-T
IEEE 802.3u	100Base-TX
IEEE 802.3ab	1000Base-T
IEEE 802.3z	1000Base-SX/LX
IEEE 802.3x	Flow Control
IEEE 802.1p	Class of Service
IEEE 802.1q	VLAN Tagging
IEEE 802.1ab	LLDP
IEEE 802.3af	PoE
IEEE 802.3at	PoE plus

## PoE Functions :

Up to 4 IEEE 802.3at devices powered  
Supports PoE Power up to 30.8W for each PoE port  
Auto detect powered device (PD)  
Remote Power Feeding up to 100m

## Power :

Input Voltage Isolation  
Primary : 48V (44~60V DC)  
Redundant : 48V (44~60V DC)  
Connection DC-Power jack  
6-pin Terminal block  
Power input polarity protection  
Power voltage drop alarm  
Power consumption : 130W Max  
Surge Protection 6KV  
ESD Protection 8KV

## Performance :

Switching Fabric	12Gbps
L2 Forwarding	8.93Mpps
Packet buffer size	4.1Mbit
MAC table size	8K
Static MAC address	256
Jumbo Frame size	10K

## Throughput :

14,880pps to 10Mbps ports  
148,800pps to 100Mbps ports  
1,488,000pps to 1000Mbps ports

## Mechanical :

Operating Temperature	-20°C to 60°C
Storage Temperature	-40°C to 85°C
Operating Humidity	10% to 95% RH
Storage Humidity	5% to 90%RH

## Dimensions :

136 x 31 x 110mm (D x W x H)

## Weight :

395g

# UT-9125 Series, SFP, 1.25G

1000Base-SX, 1000Base-LX, 1000Base-ZX SFP, Mini-GBIC



## Product Introduction & Benefits

The LINK SFP Mini-GBIC Gigabit Ethernet module can install into LINK Media Converter or Switch products with SFP Mini-GBIC interface. The distance can be extended from 220/550 meters (Multimode), up to 80 kilometers (Singlemode).

The LINK SFP transceivers are hot-swappable and hot-pluggable. You can plug-in and out the transceiver to/from any SFP port without having to power down the Media Converter/Switch.



UT-9125-00



UT-9125-10



**CISCO Compatible**

Other Brand Compatible Available

## Ordering Information :

**UT-9125-00** : 1000Base-SX, SFP 1.25G, 220/550m, Multimode, 850 nm

**UT-9125-02** : 1000Base-LX, SFP 1.25G, 2km, Multimode, 1310 nm

**UT-9125-10** : 1000Base-LX, SFP 1.25G, 10km, Singlemode, 1310 nm

**UT-9125-20** : 1000Base-LX, SFP 1.25G, 20km, Singlemode, 1310 nm

**UT-9125-40** : 1000Base-LX, SFP 1.25G 40km, Singlemode, 1310 nm

**UT-9125-80** : 1000Base-ZX, SFP 1.25G, 80km, Singlemode, 1550 nm

## Main Features :

- Compliant with IEEE802.3z Gigabit Ethernet standard
- Compliant with Fiber Channel standard
- Industry standard small form pluggable (SFP) package
- Duplex LC connector
- Compliant with multi Source Agreement
- Single power supply 3.3V
- TTL signal detect indicator
- Hot Pluggable
- Class 1 laser product complies with EN 60825-1
- Plug and Play Installation
- RoHS Compliant



Part Number	Transmit Power (dBm)	Receive Sensitivity (dBm)	Wavelength (nm)	Operation Distance (m)				Input Voltage (V)	Connector
				OM1 62.5/125	OM2 50/125	OM3 50/125	SMF 9/125		
UT-9125-00	-8 to -4	-19	850	220	550	900	-	3.3	LC Duplex
UT-9125-02	-9 to -1	-19	1310	2,000	2,000	2,000	-	3.3	LC Duplex
UT-9125-10	-9.5 to -3	-23	1310	550*	550	550	10,000	3.3	LC Duplex
UT-9125-20	-8 to -4	-24	1310	-	-	-	20,000	3.3	LC Duplex
UT-9125-40	-4 to -1	-24	1310	-	-	-	40,000	3.3	LC Duplex
UT-9125-80	0 to +5	-24	1550	-	-	-	80,000	3.3	LC Duplex

\* 550 m use with mode conditioning launch patch cord.

● **Temperature :** Operating : 0°C to +70°C  
Storage : -40°C to +85°C

● **Humidity :** Operating : 10% to 95% RH  
Storage : 5% to 95% RH

● **Safety Comply :** Class 1 Laser  
Compliant 21 CFR 1040.10 and 1040.11  
Compliant EN 60825-1

## Applications :

High capacity I/O in Storage Area Networks, Network Attached Storage, and Storage Servers

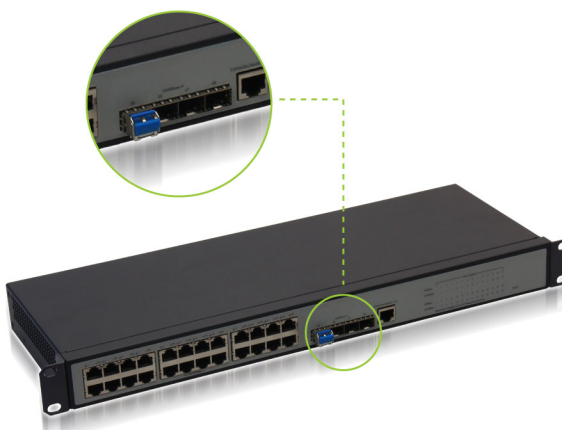
Switched fabric I/O such as ultra high bandwidth switches and routers

Data center cabling infrastructure

High density connections between networking equipment



Use with Media converter



Use with Switch



# UT-9125-T Series

## 1000Base-T, SFP, 100m Copper (UTP)



### Product Introduction & Benefits



UT-9125-T

LINK UT-9125-T Series Copper Small Form Pluggable (SFP) transceivers is high performance, cost effective module compliant with the Gigabit Ethernet and 1000BASE-T standards as specified in IEEE 802.3-2002 and IEEE 802.3ab, which supporting 1000 Mbps data-rate up to 100 meters reach over unshielded twisted-pair category 5 cable. The module supports 1000 Mbps full duplex data-links with 5-level Pulse Amplitude Modulation (PAM) signals. All four pairs in the cable are used with symbol rate at 250Mbps on each pair. The module provides standard serial ID information compliant with SFP MSA, which can be accessed with address of A0h via the 2 wire serial CMOS EEPROM protocol. The physical IC can also be accessed via 2 wire serial bus at address A0h.



**CISCO Compatible**  
Other Brand Compatible Available

### Ordering Information :

**UT-9125-TSD** : 1000Base-T, SFP, 100m, Copper (UTP), SERDES

**UT-9125-T** : 10/100/1000Base-T, SFP, 100m, Copper (UTP), SGMII

### Main Features :

- Compliant with IEEE802.3z Gigabit Ethernet standard
- Up to 1.25Gb/s data links
- Industry standard small form pluggable (SFP) package
- Hot-pluggable SFP footprint
- Temperature range 0°C to +70°C
- Fully metallic enclosure for low EMI
- Low power dissipation ( 1.05 W typical )
- Hot Pluggable
- Compact RJ-45 connector assembly
- Access to physical layer IC via 2-wire serial bus
- 1000BASE-T operation in host systems with SERDES interface
- 10/100/1000Mbps compliant in host systems with SGMII interface



PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	NOTES/CONDITION
Data Rate	BR	10	-	1,000	Mb/sec	IEEE 802.3 compatible. See Notes 2 through 4 below
Cable Length	L	-	-	100	m	Category 5 UTP. BER <10 <sup>-12</sup>

\* 550 m use with mode conditioning launch patch cord.

● **Temperature :** Operating : 0°C to +70°C  
Storage : -40°C to +85°C

● **Humidity :** Operating : 10% to 95% RH  
Storage : 5% to 95% RH

## Applications :

High capacity I/O in Storage Area Networks, Network Attached Storage, and Storage Servers

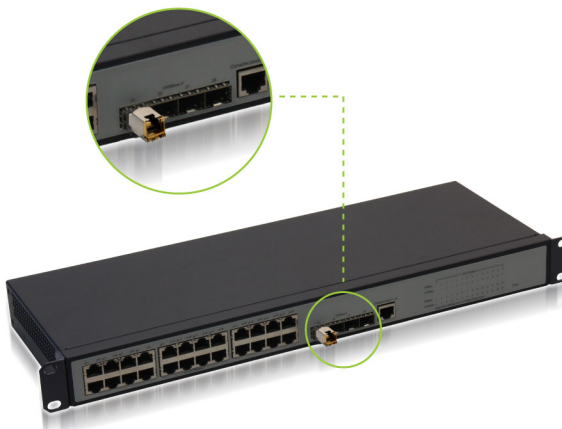
Switched fabric I/O such as ultra high bandwidth switches and routers

Data center cabling infrastructure

High density connections between networking equipment



Use with Media converter



Use with Switch

# UT-911X Series

## 1.25 G, WDM, Singlemode



UT-9113-20



UT-9114-20



### EMC :

Most equipment utilizing high-speed transceivers will be required to meet the following requirements:

- 1) FCC in the United States
- 2) CENELEC EN55022 (CISPR 22) in Europe

To assist the customer in managing the overall equipment EMC performance, the transceivers have been designed to satisfy FCC class B limits and provide good immunity to radio-frequency electromagnetic fields.

### Eye Safety :

The transceivers have been designed to meet Class 1 eye safety and comply with EN 60825-1

### Ordering Information :

**UT-9113-20/40/60/80** : 1.25G, WDM, Singlemode, Tx 1310/RX 1550 nm

**UT-9114-20/40/60/80** : 1.25G, WDM, Singlemode, Tx 1550/RX 1310 nm

### Main Features :

- Multi Data Rate: from 125M to 1.25Gbps, NRZ
- Single +3.3V Power Supply
- RoHS Compliant and Lead-free
- AC/AC Differential Electrical Interface
- Compliant with Multi-Source Agreement (MSA) Small Form Factor Pluggable (SFP)
- Compliant with SFF-8472 Digital Diagnostic
- Single LC Connector
- Compliance with specifications for IEEE-802.3z Gigabit Ethernet at 1.25 Gbps
- Compliance with ANSI specifications for Fibre Channel applications at 1.06 Gbps
- Eye Safety : Designed to meet Laser Class 1 comply with EN60825-1





Model Number	Operating Temperature. & Monitor Function	Distance	LD Type & Wavelength	Output Power	Sensitivity
UT-9113-20	0~70°C	20 km	1310 nm / 1550 nm	-8 ~ -3 dBm	$\leq -23$ dBm
UT-9114-20			1550 nm / 1310 nm		
UT-9113-40	0~70°C	40 km	1310 nm / 1550 nm	-3 ~ +2 dBm	$\leq -23$ dBm
UT-9114-40			1550 nm / 1310 nm		
UT-9113-60	0~70°C	60 km	1490 nm / 1550 nm	-5 ~ 0 dBm	$\leq -24$ dBm
UT-9114-60			1550 nm / 1490 nm		
UT-9113-80	0~70°C	80 km	1510 nm / 1570 nm	-1 ~ +4 dBm	$\leq -25$ dBm
UT-9114-80			1570 nm / 1510 nm		

\* 550 m use with mode conditioning launch patch cord.

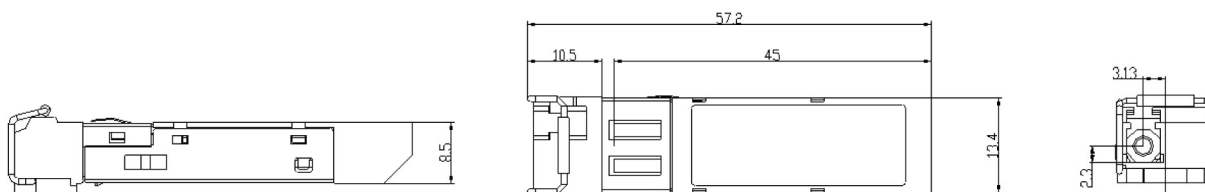
● **Temperature :** Operating : 0°C to +70°C  
Storage : -40°C to +85°C

● **Humidity :** Operating : 10% to 95% RH  
Storage : 5% to 95% RH

● **Safety Comply :** Class 1 Laser  
Compliant 21 CFR 1040.10 and 1040.11  
Compliant EN 60825-1

## ● Mechanical Dimensions :

Units in mm



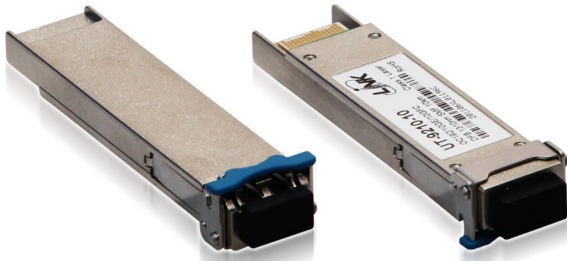
All dimensions are  $\pm 0.2$ mm unless otherwise specified

# UT-9210 Series, XFP, 10G

## 10GBase-SR, 10GBase-LR, 10GBase-ER



### Product Introduction & Benefits



UT-9210-10

The LINK XFP 10Gigabit Ethernet module can install into Switch products with XFP interface.

The distance can be extended from 300 meters (Multimode), up to 80 kilometers (Singlemode).

The LINK XFP transceivers are hot - swappable and hot - pluggable.

You can plug-in and out the transceiver to/from any XFP port with out having to power down the Switch.



**CISCO Compatible**

Orther Brand Compatible Available

### Ordering Information :

#### XFP, 10G

**UT-9210-00** : 10GBase-SR, XFP, 10G, 300m, Multimode, 850 nm

**UT-9210-10** : 10GBase-LR, XFP, 10G, 10km, Singlemode, 1310 nm

**UT-9210-40** : 10GBase-ER, XFP, 10G, 40km, Singlemode, 1550 nm

**UT-9210-80** : 10GBase-ZR, XFP, 10G, 80km, Singlemode, 1550 nm

### Main Features :

- Compliant with IEEE802.3ae 10Gigabit Ethernet standard
- Compliant with Fiber Channel standard
- Compliant with XFP Multi Source Agreement (MSA)
- 850nm VCSEL or 1310nm DFB transmitter, PIN photo-detector
- All-metal housing for superior EMI performance
- Low power consumption, Single +3.3V Power supply
- Duplex LC and Hot pluggable
- Advanced firmware allow customer system encryption information to be stored in transceiver
- XFI Electrical Interface with AC Coupling
- Plug and Play Installation
- RoHS Compliant



## UT-9210 Series Specifications :

Part Number	Transmit Power (dBm)	Receive Sensitivity (dBm)	Wavelength (nm)	Operation Distance (m)				Input Voltage (V)	Connector
				OM1 62.5/125	OM2 50/125	OM3 50/125	SMF 9/125		
UT-9210-00	-5 to -1	-11	850	33	82	300	-	3.3	LC Duplex
UT-9210-10	-5 to -0.5	-15	1310	-	-	-	10,000	3.3	LC Duplex
UT-9210-40	-1 to +2	-15	1550	-	-	-	40,000	3.3	LC Duplex
UT-9210-80	0 to +3	-25	1550	-	-	-	80,000	3.3	LC Duplex

● **Temperature :** Operating : 0°C to +70°C  
Storage : -40°C to +85°C

● **Humidity :** Operating : 10% to 95% RH  
Storage : 5% to 95% RH

● **Safety Comply :** Class 1 Laser  
Compliant 21 CFR 1040.10 and 1040.11  
Compliant EN 60825-1

## Applications :

High capacity I/O in Storage Area Networks, Network Attached Storage, and Storage Servers

Switched fabric I/O such as ultra high bandwidth switches and routers

Data center cabling infrastructure

High density connections between networking equipment



# UT-9310 Series, SFP+, 10G

## 10GBase-SR, 10GBase-LR, 10GBase-ER



### Product Introduction & Benefits



UT-9310-10

The LINK SFP+ 10Gigabit Ethernet module can install into Switch products with SFP+ interface.

The distance can be extended from 300 meters (Multimode), up to 80 kilometers (Singlemode).

The LINK SFP+ transceivers are hot - swappable and hot-pluggable.

You can plug-in and out the transceiver to/from any SFP+ port without having to power down the Switch.



**CISCO Compatible**

Other Brand Compatible Available

### Ordering Information :

#### SFP+, 10G

**UT-9310-00** : 10GBase-SR, SFP+, 10G, 300m, Multimode

**UT-9310-10** : 10GBase-LR, SFP+, 10G, 10km, Singlemode

**UT-9310-40** : 10GBase-ER, SFP+, 10G, 40km, Singlemode

**UT-9310-80** : 10GBase-ZR, SFP+, 10G, 80km, Singlemode

### Main Features :

- Compliant with IEEE802.3ae 10Gigabit Ethernet standard
- Compliant with Fiber Channel standard
- Compliant with SFP+ Multi Source Agreement (MSA)
- 850nm VCSEL or 1310nm DFB transmitter, PIN photo-detector
- All-metal housing for superior EMI performance
- Low power consumption, Single +3.3V Power supply
- Duplex LC and Hot pluggable
- Advanced firmware allow customer system encryption information to be stored in transceiver
- Cost effective SFP+ solution, enables higher port densities and greater bandwidth
- Plug and Play Installation
- RoHS Compliant



Part Number	Transmit Power (dBm)	Receive Sensitivity (dBm)	Wavelength (nm)	Operation Distance (m)				Input Voltage (V)	Connector
				OM1 62.5/125	OM2 50/125	OM3 50/125	SMF 9/125		
UT-9310-00	-5 to -1	-12	850	33	82	300	-	3.3	LC Duplex
UT-9310-10	-5 to -0.5	-15	1310	-	-	-	10,000	3.3	LC Duplex
UT-9310-40	-1 to +2	-15	1550	-	-	-	40,000	3.3	LC Duplex
UT-9310-80	0 to +3	-24.5	1550	-	-	-	80,000	3.3	LC Duplex

● **Temperature :** Operating : 0°C to +70°C  
Storage : -40°C to +85°C

● **Humidity :** Operating : 10% to 95% RH  
Storage : 5% to 95% RH

● **Safety Comply :** Class 1 Laser  
Compliant 21 CFR 1040.10 and 1040.11  
Compliant EN 60825-1

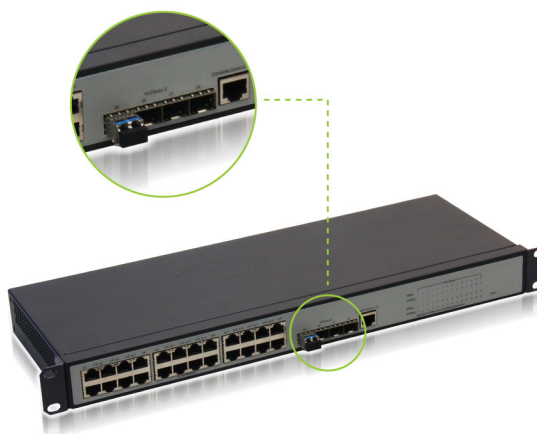
## Applications :

High capacity I/O in Storage Area Networks, Network Attached Storage, and Storage Servers

Switched fabric I/O such as ultra high bandwidth switches and routers

Data center cabling infrastructure

High density connections between networking equipment



Use with Switch



UT-960X

## Product Introduction & Benefits

The LINK SFP+ cable assemblies are high performance, cost effective I/O solutions for 10Gb Ethernet and High density connections between networking e10G fibre Channel applications. SFP+ copper modules allow hardware manufactures to achieve high port density, configurability and utilization at a very low cost and reduced power budget. The high speed cable assemblies meet and exceed Gigabit Ethernet and Fibre Channel industry standard requirements for performance and reliability.

## Main Features :

- Compliant with IEEE802.3ae 10Gigabit Ethernet standard
- Compliant with Fiber Channel standard
- Compliant with SFP+ Multi Source Agreement (MSA)
- All-metal housing for superior EMI performance
- Low power consumption, Single +3.3V Power supply
- Plug and Play Installation, RoHS Compliant



**CISCO Compatible**  
Other Brand Compatible Available

## Ordering Information :

### Passive :

**UT-9601** : 10G SFP+ Copper Cable Assembly, Passive, 1m  
**UT-9603** : 10G SFP+ Copper Cable Assembly, Passive, 3m  
**UT-9605** : 10G SFP+ Copper Cable Assembly, Passive, 5m  
**UT-9607** : 10G SFP+ Copper Cable Assembly, Passive, 7m  
**UT-9610** : 10G SFP+ Copper Cable Assembly, Passive, 10m

### Active :

**UT-9605A** : 10G SFP+ Copper Cable Assembly, Active, 5m  
**UT-9607A** : 10G SFP+ Copper Cable Assembly, Active, 7m  
**UT-9610A** : 10G SFP+ Copper Cable Assembly, Active, 10m  
**UT-9615A** : 10G SFP+ Copper Cable Assembly, Active, 15m

● **Temperature :** Operating : 0°C to +70°C  
Storage : -40°C to +85°C

● **Humidity :** Operating : 10% to 95% RH  
Storage : 5% to 95% RH

● **Safety Comply :** FCC and CE

## Applications :

High capacity I/O in Storage Area Networks, Network Attached Storage, and Storage Servers Switched fabric I/O such as ultra high bandwidth switches and routers Data center cabling infrastructure High density connections between networking equipment







UT-4006



### Ordering Information :

**UT-4004** : RS-232 to Multimode Fiber Media Converter (ST Connector, 2km)

**UT-4006** : RS-232 to Multimode Fiber Media Converter (SC Connector, 2km)

**UT-4006SM-30/60/100/120** : RS-232 to Singlemode Fiber Media Converter (SC Connector, 30/60/100/120km)

### Main Features :

- Complies with EIA/TIA-232, EIA/TIA- 574 & CCITT V.28 standards
- Supports asynchronous data transfer rate up to 115.2 Kbps
- 35mm DIN-rail mounted
- LED status indicators for power (PWR), link (LNK) And receive (RCV)
- Available ST/SC connectors
- External power supply
- Chassis compliant (internal power supply)
- FCC Class A & CE approved
- RoHS Compliant
- Included AC power adapter 220 VAC / 12 VDC, 1A

### Product Introduction & Benefits

The UT-400X converter is a solid solution for applications that require a reliable link from remote terminals to host computers. The unit offers cost-efficiency for extending to distances ranging from 2km (multi-mode) to 120km (long-haul, single-mode fiber). Together with its simple-to-setup-and-install characteristics, the converter makes it easy to combine the advantages of fiber technology within an RS-232 serial-based network.

By facilitating the integration of the existing serial with newer fiber - optic cabling, the UT- 400x represents a cost - effective solution for network administrators eager to keep costs down when upgrading.

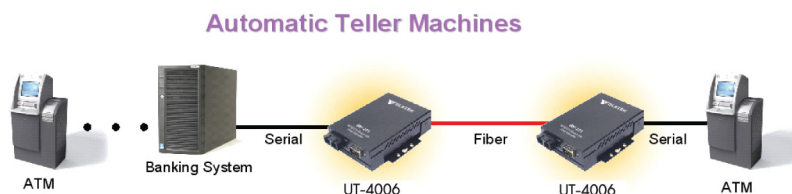
The converter is ideal for connecting data - communication devices situated in manufacturing - intensive environments where electromagnetic and radio - frequency interference is a major concern. Data integrity is also assured due to the characteristics of fiber-optic cable that make any leakage transmission detectable.

# UT-400X Series Specifications :



● <b>Standard :</b>	EIA/TIA-232, EIA/TIA - 574 & CCITT V.28
● <b>Port :</b>	Copper Connector : 1x serial RS-232 (DB-9 Male) Fiber Optic Connector : 1x ST or SC type (only SC type for Single Mode)
● <b>Max Distance :</b>	Copper : 15 meters Fiber Optic : 2km (Multimode) 30 - 120km (Singlemode)
● <b>Data Rates :</b>	Serial : 115.2 kbps (asynchronous)
● <b>Emissions :</b>	FCC Part 15 of Class A & CE approved
● <b>Weight :</b>	280 g
● <b>Dimensions :</b>	109.2 x 90 x 31.5 mm (D x W x H)
● <b>Configuration :</b>	Parity : none, even, odd Data Bits : 7, 8 Stop Bits : 1, 2 (Non-parity Only)
● <b>Power :</b>	Power Input : 9~32V DC, external power adapter
● <b>Temperature :</b>	Operating : 0°C to 50°C Storage : -20°C to 80°C
● <b>Humidity :</b>	Operating : 10% to 80% RH Storage : 5% to 90% RH
● <b>Unit LED :</b>	PWR : Green - Illuminated for normal operation LNK : Green - Illuminated when receiving link pulse from compliant device RCV : Amber - Illuminated when receiving packets from DTE or DCE

## Applications :



UT-400X Serial Converter is suitable for commercial use like Point-of-Sale or ATM networking as illustrated right.

### Product Introduction & Benefits



UT-4206

This unit offers cost - efficiency for extending distances to between 2km (multi-mode fiber) and 120km (single-mode fiber). The UT-420X enables network managers to install fiber cabling anywhere within the existing network environment -- without the removal, replacement or modification of existing copper - based RS-422/485 infrastructure. Plus, it is capable of 4-wire and 2-wire operations via DIP switch.

Simply use the DIP switch to adapt to different cabling environments (e.g. 4-wire or 2-wire). The converter is ideal for connecting data communication devices situated in manufacturing-intensive environments where electromagnetic and radio-frequency interference is a major concern. Data integrity is also assured due to the characteristics of fiber-optic cables that make any leakage of transmission detectable.



### Ordering Information :

**UT-4204** : RS-422/485 to Multimode Fiber Media Converter (ST Connector, 2km)

**UT-4206** : RS-422/485 to Multimode Fiber Media Converter (SC Connector, 2km)

**UT-4206SM-30/60/100/120** : RS-422/485 to Singlemode Fiber Media Converter (SC Connector, 30/60/100/120km)

### Main Features :

- Complies with EIA/TIA-422, EIA/TIA-485
- Supports asynchronous data transfer rate of up to 115.2 kbps
- Supports 4-wire full and 2-wire asynchronous data transmission
- DIP switch enable / disable functions
- Available ST/SC connector
- LED status indicators for system monitoring
- DIP switch-enabled "terminator"
- 35mm DIN RAIL mounted
- External power supply
- Chassis compliant (internal power supply)
- FCC Class A & CE approved
- RoHS Compliant
- Included AC power adapter 220 VAC / 12 VDC, 1A





# UT-420X Series Specifications :



● <b>Standard :</b>	EIA/TIA-422, EIA/TIA- 485
● <b>Port :</b>	Copper Connector : 1x serial RS-422/485 (Terminal Block) Fiber Optic Connector : 1x ST or SC type (only SC type for Single Mode)
● <b>Max Distance :</b>	Copper : 1200 meters Fiber Optic : 2km, (Multi Mode) 30 - 120km, (Single Mode)
● <b>Data Rates :</b>	Serial : 115.2 kbps (asynchronous)
● <b>Emissions :</b>	FCC Part 15 of Class A & CE approved
● <b>Weight :</b>	280 g
● <b>Dimensions :</b>	109.2 x 90 x 31.5 mm (D x W x H)
● <b>DIP Switches :</b>	DIP1 : N/A DIP2 : N/A DIP3 : Enable / disable 2-wire/4-wire mode DIP4 : Enable / disable terminator (TMR)
● <b>Power :</b>	Power Input : 9 ~ 32V DC, external power adapter
● <b>Temperature :</b>	Operating : 0°C to 50°C Storage : -20°C to 80°C
● <b>Humidity :</b>	Operating : 5% to 90% RH Storage : 0% to 80% RH
● <b>Unit LED :</b>	PWR : Green - Illuminated for normal operation LNK : Green - Illuminated when fiber is properly connected RCV : Amber - Illuminated for receiving packets from RS-422/485 Device



## Applications :

- Industrial/Factory/Laboratory automation SCADA systems Self-service banking systems
- Factory robots and HVAC control systems
- Wafer fabrication systems
- Point of Sale (POS) systems
- Security cameras or other remote distributed serial devices
- Any application where ruggedness, durability and shock/vibration - proof qualities are required



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